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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,215	06/26/2003	Konstantin Zuev	76,U08	4327
7590 Hahn and Moodley LLP P.O. Box 52050 Minneapolis, MN 55402				
EXAMINER				
CARTER, AARON W				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/603,215

Applicant(s)

ZUEV ET AL.

Examiner

AARON W. CARTER

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-14, 16, 18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) 2, 4, 5 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 6-9, 11-13, 16, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to papers filed on 8/20/09.

Response to Amendment

2. In response to applicant's amendment received on 8/20/09, all requested changes to the specification and claims have been entered. Claims 1-9, 11-14, 16, 18 and 19 are pending.

Election/Restrictions

3. Claims 2, 4, 5 and 14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/12/09.

Positive Statement Regarding 101

4. Claim 1 is a process claim that contains limitations that inherently require the use of a particular machine. Therefore the claim is considered to satisfy the requirements of the "machine or transformation" test and is considered statutory.

Specification

5. The amendment filed 8/20/09 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new

matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Regarding the amendment to page 8 starting with line 24, nothing the original disclosure mentions the new matter of "(c) rotating the form image by 90°, and repeating step (c); in the case of said comparison between the detected graphic image and the spatial orientation model yielding a match that is below a predetermined level". If the original claims, filed 7/26/03, are considered part of the original disclosure they would only support "returning to the previous step in the case of the image identification reliability level on the previous step being lower then the predetermined level thereof" or in other words returning to step (b) in the most recently presented claims.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

Claim 1 is objected to because of the following informalities:

6. Regarding claim 1, the limitation of "(c) rotating the form image by 90°, and repeating step (c); in the case of said comparison between the detected graphic image and the spatial orientation model yielding a match that is below a predetermined level" appears to contain a typo. For purposes of applying prior art the Examiner will treat the claim as though the limitation recites "(c) rotating the form image by 90°, and repeating step (b); in the case of said comparison between the detected graphic image and the spatial orientation model yielding a match that is below a predetermined level" until otherwise notified.

7. Claim 1 discloses substeps “(b)” and “(c)” however there is no substep “(a)”. It would appear that the steps are either mislabeled or substep “(a)” is just not labeled.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 6-9, 11-13, 16, 18 and 19 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the purpose of the limitation “parsing a form image into regions” is indefinite. It is unclear why the regions are parsed since the regions are not used in any of the following limitations or dependent claims.

Claims 3, 6-9, 11-13, 16, 18 and 19 are rejected by the virtue of their dependency upon claim 1 above.

In claim 19, the limitation of “wherein at least one said form object, comprising the said graphic image is described in a form of an alternative” is vague and indefinite. It is unclear what is meant by “described in a form of an alternative”.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1, 3, 7, 8, 11, 16, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,993,205 to Lorie et al. (“Lorie”) (already of record).

As to claim 1, Lorie discloses a method for a machine to perform o-f machine-readable form pre-recognition analysis comprising:

preliminarily assigning at least one form object as a graphic image for identification of a spatial orientation of a form (*Fig. 1, element 10 and column 4, lines 58-63, wherein text corresponds to the graphic image which part of the pre-trained character recognition engine*),

preliminarily creating at least one spatial orientation model of the said graphic image for identification of the spatial orientation of the form (*Fig. 1, element 10 and column 4, lines 58-63,*

wherein the character recognition engine comprises models of text in their correct orientation for use in comparison with input text blocks),

parsing a form image into regions (column 4, lines 58-63, wherein an input form image is parsed into text blocks),

determining the spatial orientation of the form image, comprising:

detecting on the form image at least one of said graphic images for identification of the spatial orientation of the form (column 4, lines 58-63, wherein text blocks from an input form image correspond to graphic images for identification of spatial orientation of the form);

(b) determining the spatial orientation of the form image based on a comparison of the detected graphic image with the spatial orientation model (Fig. 1, elements 11-14),

(c) rotating the form image by 90°; and repeating step (b) in the case of said comparison between the detected graphic image and the spatial orientation model yielding a match that is below a predetermined level (Fig. 1, element 15).

As to claim 3, Lorie discloses the method as recited in claim 1, wherein determining the spatial orientation comprises setting up and examining hypotheses and corresponding matching reliability estimations (*Fig. 1, elements 11-14*).

As to claim 7, Lorie discloses the method as recited in claim 1, wherein the at least one form object assigned as a graphic image comprises a text image (*Fig. 1, element 10 and column 4, lines 58-63, wherein text corresponds to the graphic image which part of the pre-trained character recognition engine*).

As to claim 8, Lorie discloses the method as recited in claim 7, wherein text in said text image is additionally recognized as a first step in the pre-recognition analysis (*Fig. 1, element 10 and column 4, lines 58-63*).

As to claim 11, Lorie discloses the method as recited in claims 1, wherein assigning comprises assigning a group of graphic images (*Fig. 1, element 10 and column 4, lines 58-63, wherein the character recognition engine is assigned with multiple characters that may be recognized which corresponds to a group of graphic images*).

As to claim 16, Lorie discloses the method as recited in claims 11, wherein the entire group of graphic images is used for determining the spatial orientation (*Fig. 1, element 10 and column 4, lines 58-63*).

As to claim 18, Lorie discloses the method as recited in claim 1, wherein the said spatial orientation model is stored in a form model description (*Fig. 1, element 10 and column 4, lines 58-63, wherein the character recognition engine corresponds to a form model description*).

As to claim 19, Lorie discloses the method as recited in claim 1, wherein at least one said form object, comprising the said graphic image is described in a form of an alternative (*Fig. 1, element 10 and column 4, lines 58-63*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,993,205 to Lorie et al. ("Lorie") (already of record) in view of USPN 5,461,459 to Muramatsu et al. ("Muramatsu").

As to claim 9, Lorie discloses the method as recited in claim 8.

Lorie does not disclose expressly wherein the recognized text is used as supplementary data in a form type definition process.

However, Muramatsu discloses recognizing text in a pre-recognition process (*Fig. 22, element S71*) and wherein the recognized text is used as supplementary data in a form type definition process (*Fig. 22, element S72, wherein landscape or portrait orientation corresponds to form type*).

Lorie & Muramatsu are combinable because they are from the same art of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to employ the technique of using recognized text is used as supplementary data in a form type definition process, as taught by Muramatsu, with the method for machine-readable form pre-recognition analysis disclosed by Lorie.

The suggestion/motivation for doing so would have been accurate document orientation recognition (*Muramatsu, column 1, line 63 - column 2, line 13*).

Therefore, it would have been obvious to combine Lorie with Muramatsu to obtain the invention as specified in claim 9.

Allowable Subject Matter

11. Claims 6, 12 and 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON W. CARTER whose telephone number is (571)272-7445. The examiner can normally be reached on 9am - 5:30 pm (Mon. - Fri.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron W Carter/
Primary Examiner, Art Unit 2624